MAHINDRA & MAHINDRA LTD.

EXECUTIVE ORDER U-R-043-0223 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in California Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)		
2019	KMMLL03.5N95	3.53	Diesel	8000		
	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLICATION			
Electron Exhaust	Turbocharger, Charge A ic Direct Injection, Electro Gas Recirculation, Diese Selective Catalyst Reduc Ammonia Oxidation C	nic Control Module, I Oxidation Catalyst, ction-Urea,	Loader, Tractor			

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kW-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, Califomia Code of Regulations, (13 CCR) Section 2423):

RATED	EMISSION STANDARD CATEGORY		EXHAUST (g/kW-hr)				OPACITY (%)			
POWER			NMHC	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
56 ≤ kW < 75	Tier 4 Final	STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.02	0.26		0.1	0.02			

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

Mes &

Allen Lyons, Chief

Emissions Compliance, Automotive Regulations and Science Division

day of May 2019.

Engine Model Summary Form

U-R-043-0223 10/25/18

ATTACHMENT 1 OF 1

MAHINDRA & MAHINDRA LTD.,

Engine category: Nonroad CI

Manufacturer:

EPA Engine Family: KMMLL03.5N95

Mfr Family Name: MAHINDRA & MAHINDRA LTD.,

Process Code: New Submission

1.Engine Code	2.Engine Model	3.8HP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
VNE 495	VNE 495	95@2300	67@2300	34.03	368@1500	80@368	26.5	TC, CAC, DFI, EM
			(mm3/str/Cyl)		_	(mm3/str/Cyl)		ECM, EGR, DOC
								SCR, AMOX